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AUG 13 2007

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## FAX COVER SHEET

FAX NUMBER TRANSMITTED TO: (571) 273-8300

To: US Patent and Trademark Office  
 Art Unit: 1645  
 Examiner: Devi, Sarvamangala, JN  
 Serial No.: 10/691,384  
 Inventor(s): Stephen P. Oliver et al  
 Title: STREPTOCOCCUS UBERIS ADHESION MOLECULE  
 Filed: October 22, 2003  
 From: Howard Eisenberg  
 Atty Docket No.: HME/7477.0017  
 Date: August 13, 2007

DOCUMENTS	NUMBER OF PAGES*
Transmittal Form	One
Fee Transmittal Form	One
Fourth IDS	Two
Form PTO/SB/08B - Substitute for 1449/PTO	One
Reference C I - Park et al	Two
Reference C J - Wang et al	Two
Reference C K - Smoot et al	Seven
Credit Card Payment Form	One
Total Pages (not counting cover page)	Seventeen

\* NOT COUNTING COVER SHEET. IF YOU DO NOT RECEIVE ALL PAGES, PLEASE TELEPHONE US IMMEDIATELY AT (484) 412-8419.

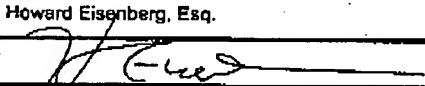
PTO/SB/21 (08-08)

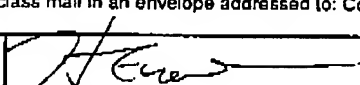
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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/681,384	<b>RECEIVED</b> <b>CENTRAL FAX CENTER</b> <b>AUG 13 2007</b>
	Filing Date	October 22, 2003	
	First Named Inventor	Stephen P. Oliver	
	Art Unit	1845	
	Examiner Name	Devi, Savramangala JN	
Total Number of Pages in This Submission	18	Attorney Docket Number	HME/7477.0017

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Three non-patent references Fax Cover Page
Remarks		
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm Name	Howard Eisenberg, Esq.	
Signature		
Printed name	Howard Eisenberg	
Date	August 13, 2007	Reg. No. 38,789

CERTIFICATE OF TRANSMISSION/MAILING	
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:	
Signature	
Typed or printed name	Howard Eisenberg
Date	August 13, 2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/BB/17 (05-07)

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Effective on 12/08/2004,  
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4618).**FEE TRANSMITTAL**  
**For FY 2007**☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 180

Complete If Known

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Application Number	10/691,384
Filing Date	October 22, 2003
First Named Inventor	Stephen P. Oliver
Examiner Name	Devi, Savamangala J N
Art Unit	1645
Attorney Docket No.	HME/7477.0017

CENTRAL FAX CENTER

AUG 13 2007

**METHOD OF PAYMENT** (check all that apply)☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify):☐ Deposit Account Deposit Account Number: 50-1773 Deposit Account Name:

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below☐ Charge fee(s) indicated below, except for the filing fee☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2039.

**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES****Fee Description**

Each claim over 20 (including Reissues)

Fee (\$)	Small Entity Fee (\$)
50	25

Each independent claim over 3 (including Reissues)

200	100
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Multiple dependent claims

360	180
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Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
11	20 or HP =	0	x =

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
3	3 or HP =	0	x =

HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

**4. OTHER FEE(S)**

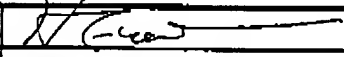
Non-English Specification, \$130 fee (no small entity discount)

Fees Paid (\$)

Other (e.g., late filing surcharge): Information Disclosure Statement

180

**SUBMITTED BY**

Signature		Registration No. (Attorney/Agent) 36,789	Telephone (484) 412-8419
Name (Print/Type)	Howard Eisenberg	Date August 13, 2007	

This collection of information is required by 37 CFR 1.135. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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AUG 13 2007

Atty Doc. No. HME/7477.0017

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

## PATENT APPLICATION EXAMINING OPERATIONS

In re the Application of  
Stephen P. Oliver, et al : Group Art Unit: 1645

Serial No. 10/691,384 : Examiner: Devi, Sarvamangala

Filed: October 22, 2003 : Date: August 13, 2007

For a Patent for :  
STREPTOCOCCUS UBERIS ADHESION  
MOLECULE

FOURTH INFORMATION DISCLOSURE STATEMENT  
IN ACCORDANCE WITH 37 CFR §1.98

Box AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicants submit herewith copies of patents and publications of which they are aware and which they desire to have considered by the Patent Office in accordance with 37 CFR §1.97. In accordance with 37 CFR §1.97(d), this Information Disclosure Statement is being submitted after the mailing date of a final Office Action and is accompanied by a statement as required in 37 CFR §1.97(d)(1) and the fee set forth in 37 CFR §1.17(p) as required in 37 CFR §1.97(d)(2).

Applicants, and the undersigned Attorney for Applicant, hereby state that each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.

08/14/2007 RMEBRAHT 00000063 10691384

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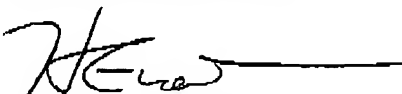
1

In accordance with 37 CFR §1.97(h), the filing of this Information Disclosure Statement will not be regarded as an admission that any patent or publication or combination of patents referred to herein is, or is considered to be, material to patentability under 37 CFR §1.56(b) unless specifically designated as such.

A list of the patents and publications enclosed herewith is set forth on the attached 1 page of Information Disclosure Statement by Applicant.

The person making this statement is the attorney who signs below on the basis of the information supplied by the inventor and the information in his file.

Respectfully submitted,

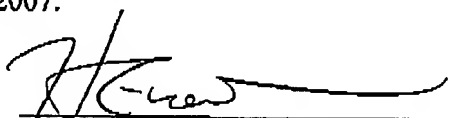


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Dated: August 13, 2007



Howard M. Eisenberg

AUG 13 2007

PTO/SB/08B (04-07)

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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/691,384
		Filing Date	October 22, 2003
		First Named Inventor	Stephen P. Oliver
		Art Unit	1645
		Examiner Name	Devi, Sarvamangala, JN
		Attorney Docket Number	HME/7477.0017
Sheet	1	of	1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C I	PARK, HM et al, "Effect of Iron chelators on expression of Streptococcus uberis lactoferrin-binding proteins," DATABASE BIOSIS, Accession No. PREV200200233416 (2001)	
	C J	WANG, L et al, "Prokaryotic essential gene #31978", XP-002438045, Database Geneseq, retrieved from EBI Accession No. GSN:ACA50321 (2003)	
	C K	SMOOT, JC et al, "Streptococcus pyogenes strain MGAS8232, section 21 of 173 . . .", XP-002438021, Database EMBL, retrieved from EBI Accession No. EMBL:AE009973, (2002)	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 608. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.88. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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